

SHILOVA, A.I.

Some gregarious tendipedid species (Diptera, Tendipedidae) of  
the Amu Darya Basin. Ent.oboz. 34:313-322 '55. (MLRA 9:5)

1. Kafedra entomologii Moskovskogo gosudarstvennogo universiteta.  
(Amu Darya Basin--Diptera)

SHILOVA, A. I.

USSR/ Biology - Zoology

Card 1/1 Pub. 22 - 12/47

Authors : Shilova, A. I.

Title : Feeding of *Cricetopus Silvestris* F. larvae in connection with the structure of their mouth apparatus

Periodical : Dok. AN SSSR 100/6, 1191-1193, Feb. 21, 1955

Abstract : The problems of feeding *Cricetopus Silvestris* F. larvae, taken from the weeds of the Volga River estuary, because of their peculiar mouth structure, are discussed. Six USSR references (1926-1952). Drawing.

Institution : Academy of Sciences USSR, The N. A. Morozov Scientific Research Biological Station "Dorok".

Presented by : Academician E. N. Pavlovskiy, November 10, 1954

SHILOVA, A.I.

~~SHILOVA, A.I.~~  
Filtration method of feeding in midges (Diptera, Tendipedidae).  
Dokl.AN SSSR 105 no.3:596-598 N '55. (MLRA 9:3)

1. Nauchno-issledovatel'skaya biologicheskaya stantsiya "Borok"  
Akademii nauk SSSR. Predstavleno akademikom Ye.N. Pavlovskim.  
(Diptera) (Larvae)

SHILOVA, A.I.

Palearctic species of the subgenus *Camptochironomus* Kieff. of the genus *Tendipes* Mg (Diptera, Tendipedidae) [with summary in German] Ent. oboz. 36 no. 1: 224-230 '57. (MIRA 10:4)

1. Institut biologii i zoonologii Akademii nauk SSSR, Borok.  
(Chironomidae)

SHILOVA, A.I.

Materials on the biology of tendipedid larvae (*Tendipes* Mg.) in  
Rybinsk Reservoir. Trudy Biol. sta. "Borok" no.3:250-258 '58.  
(MIRA 11:9)

(Rybinsk Reservoir--Chironomidae)

SHILOVA, A.I.

Systematics of the genus *Tendipes* Mg. (Diptera, Tendipedidae)  
[with summary in German]. Ent. oboz. 37 no. 2:43-149 '53.  
(MIRA 11:7)

1. Institut biologii vodokhranilish: Akademii nauk SSSR, Borok,  
Yaroslavskoy obl.  
(Chironomidae)

SHILOVA, A.I.

*Cryptochironomus ussouriensis* Goetgh. ( *nigridens* Tschern.) and  
some data on its biology. Trudy Inst.biol.vodokhran. no.2:  
109-116 '59. (MIRA 13:5)  
(Rybinsk Reservoir--Chironomidae)

SHILOVA, A.I.

Seasonal variations in the populations of *Tendipes plumosus* L. and  
*T. tentans* F. in Rybinsk Reservoir. Trudy 1st. biol. vodokhran  
no.3:129-142 '60. (MIRA 14:3)  
(Rybinsk Reservoir--Chironomidae)



SHILOVA, A.I.

Metamorphosis of *Cryptochironomus burganadzeae* Tshern. Trudy Inst.  
biol. vodochran. no.3:143-149 '61. (MIRA 14:3)  
(Chironomidae) (Insects—Development)

SHILOVA, A.I.

A new genus and species of midges (Diptera, Tendipedidae). Biol.  
Inst.biol.vodokhran. no.11:19-23 '61. (MIRA 15:8)

1. Institut biologii vodokhranilishch AN SSSR.  
(RYBINSK RESERVOIR—CHIRONOMIDAE)

SHILOVA, A.I.

Dynamics of the abundance and the biomass of *Tendipes plumosus* L.  
in Rybinsk and Gorkiy Reservoirs. Vop. ekol. 5:246 '62.  
(MIRA 16:6)

1. Institut biologii vodokhranilishch AN SSSR, Borok.  
(Rybinsk Reservoir--Chironomidae)  
(Gorkiy Reservoir--Chironomidae)

SHILOVA, A.I.

Metamorphosis of *Lipiniella arericola* Shilova (Diptera,  
Tendipedidae). Trudy Inst. biol. vodokhran. no.5:71-80'63.(MIRA 16:8)  
(RYBINSK RESERVOIR—CHIRONOMIDAE)

SHILOVA, A.I.

Taxonomic position of *Allochironomus crassiforceps* Kiebf. (Diptera,  
Tendipedidae). Ent. oboz. 43 no.3:734-736 '64.

(MIRA 17:10)

NECHIPORENKO, G.N.; TABRINA, G.M.; SHILOVA, A.K.; SHIL'OV, A.Ye.

Mechanism of nitrogen fixation in the reacting system  
(C<sub>2</sub>H<sub>5</sub>) TiCl<sub>2</sub> -- C<sub>2</sub>H<sub>5</sub>MgBr. Dokl. AN SSSR 184 no.5:1062-1064

0 '65.

(MIRA 18:10)

1. Institut khimicheskoy fiziki AN SSSR. Submitted March 22, 1965.

S/190/62/004/011/007/014  
B106/B101

AUTHORS: Shilov, A. Ye., Shilova, A. K., Bobkov, B. N.  
TITLE: Reaction of  $\alpha$ -olefins with soluble complex Ziegler catalysts  
and the mechanism of polymerization initiation  
PERIODICAL: Vysokomolekulyarnyye soyedineniya, v. 4, no. 11, 1962, .....  
1588 - 1695

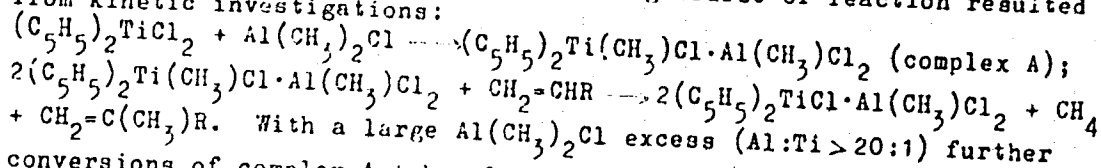
TEXT: In a previous paper (Ref. 3: A. K. Zefirova, A. Ye. Shilov, Dokl. AN SSSR, 136, 599, 1961) the hypothesis was put forward that the polymerization of ethylene is initiated by an ionic mechanism in the presence of a Ziegler catalyst obtained by bringing dicyclopentac-enyl titanium into reaction with aluminum alkyls. This hypothesis was studied experimentally on the basis of the catalytic system  $(C_5H_5)_2TiCl_2-Al(CH_3)_2Cl$ . Since the polymerization of ethylene coincides with the reduction of  $Ti^{4+}$  to  $Ti^{3+}$ , which is accompanied by a change in color, the process was studied by spectrophotometry. Titanium is reduced by reaction of  $(C_5H_5)_2TiCl_2$  with  $Al(CH_3)_2Cl$  only in the presence of  $\alpha$ -olefins (studied in

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Reaction of  $\alpha$ -olefins...

S/190/62/004/011/007/014  
B106/B101

n-heptene-1 as an example). The following course of reaction resulted from kinetic investigations:



conversions of complex A take place; the resulting compounds do not react with  $\alpha$ -olefins. The polymerization rate of ethylene in the  $(\text{C}_5\text{H}_5)_2\text{TiCl}_2\text{-Al}(\text{CH}_3)_2\text{Cl}$  system as well as the rate of titanium reduction in this system in the presence of an  $\alpha$ -olefin are directly proportional to the increase in electrical conductivity due to the formation of the complex A. These results confirm that the Ti reduction in the presence of an  $\alpha$ -olefin, as well as the initiation of polymerizations in the system studied, have an ionic mechanism. This does not agree with the results obtained by J. C. W. Chien (J. Amer. Chem. Soc., 81, 86, 1959). The mechanism of Ti reduction is analogous to that indicated in Ref. 3 for the reduction of  $(\text{C}_5\text{H}_5)_2\text{TiCl}_2$  by  $\text{Al}(\text{C}_2\text{H}_5)_2\text{Cl}$ . The sole difference is that in the case of  $\text{Al}(\text{C}_2\text{H}_5)_2\text{Cl}$  the intramolecular disproportioning of the two

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Reaction of  $\alpha$ -olefins...

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ethyl groups can start without preliminary incorporation of the olefin. A rough estimate of the ion concentration in the reaction studied (using benzene as a solvent) with the aid of the Walden equation yielded  $5 \cdot 10^{-3}$  mole/l for medium concentrations of complex A of  $5 \cdot 10^{-3}$  mole/l. Hence, the concentration of ions is very low and their reactivity very high. There are 5 figures. The most important English-language references are: W. P. Long, D. S. Breslow, J. Amer. Chem. Soc., 82, 1953, 1960; A. N. Maki, E. W. Randall, J. Amer. Chem. Soc., 82, 4109, 1960; G. Wilkinson, J. M. Birmingham, J. Amer. Chem. Soc., 76, 4281, 1954. ✓

ASSOCIATION: Institut khimicheskoy fiziki AN SSSR (Institute of Chemical Physics AS USSR)

SUBMITTED: June 30, 1961

Card 3/3

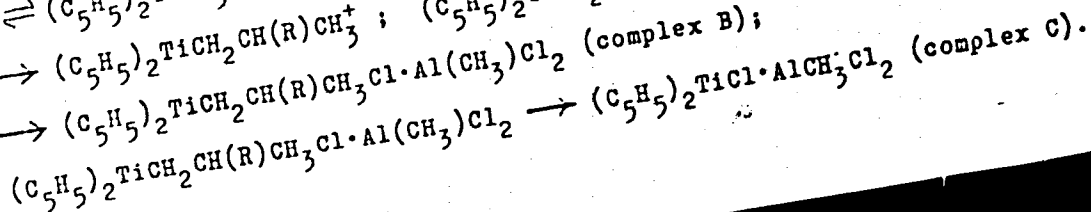
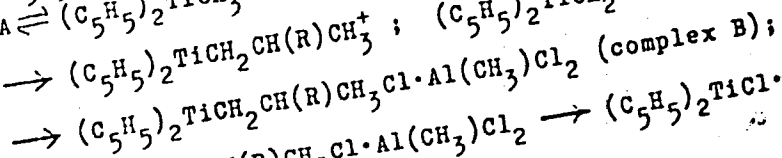
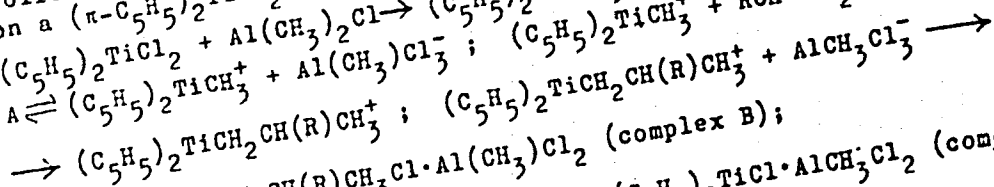
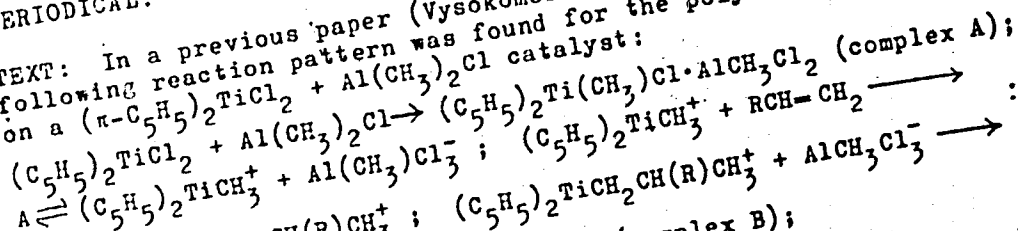
S/020/63/148/001/026/032  
B101/B186

AUTHORS: Stepovik, L. P., Shilova, A. K., Shilov, A. Ye.

TITLE: Kinetics and mechanism of the initiation of ethylene polymerization on a soluble Ziegler-type complex catalyst

PERIODICAL: Akademiya nauk SSSR. Doklady, v. 148, no. 1, 1963, 122-125

TEXT: In a previous paper (Vysokomolek. soyed., 4, no. 11 (1962)) the following reaction pattern was found for the polymerization of olefins on a  $(\pi-C_5H_5)_2TiCl_2 + Al(CH_3)_2Cl$  catalyst:



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Kinetics and mechanism of the ...

S/020/63/148/001/026/032  
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The reduced titanium in complex C is no longer active. In the present paper a direct proof of this order of reaction for ethylene is given, based on determining spectroscopically the variations in concentration of the complexes A, B (in the present case R = H) and C from the variations in optical density of the solution at 660 and 610 mμ for A and B, and at 720 and 520 mμ for C. The determination of the concentration of C on the basis of the e.p.r. spectrum agreed well with optical data. It was found that the sum A+B+C remained constant and that the reaction occurred in the order  $A \rightarrow B \rightarrow C$ . This is the first direct proof that the olefin molecule is added to the Ti-C bond. The kinetic equation for complex B is:  $(d[B]/dt)_0 = k[A]^{1/2}[C_2H_4]$ . The following data were found by experiments:  $k_{0C} \cdot 10^3, l^{1/2} \cdot \text{mole}^{-1/2} \cdot \text{sec}^{-1}$  equaled  $4.9 \pm 0.2$  for  $C_2H_4$ ,  $1.7 \pm 0.1$  for  $C_3H_6$ ,  $0.51 \pm 0.04$  for  $C_7H_{14}$ , and  $0.037$  for  $C_2H_3Cl$ . The specific effect which the catalyst investigated exerts on the ethylene polymerization is explained by the fact that in this case the linear  $C_3H_7$  radical is formed from  $C_2H_4$ , whereas the branched group  $-CH_2-CH(CH_3)R$  is formed from the

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Kinetics and mechanism of the ...

S/020/63/148/001/026/032  
B101/B186

$\alpha$ -olefins of the formula  $RCH=CH_2$ ; this group is easily converted to the isoolefin  $CH_2=c(CH_3)R$ , with the titanium being reduced and termination occurring. This generally holds for Ziegler catalysts by which ethylene, but no other  $\alpha$ -olefins, can be polymerized. An active B complex is formed only with  $C_2H_4$ . The ratio  $k_2/k_1$  between the constant  $k_2$  for chain propagation and  $k_1$  for initiation was found to be 18.9, in good agreement with the value, 19, found from the ratio between maximum rate of polymerization at constant  $PC_2H_4$  and the initial rate of complex formation. These results do not confirm the assumptions made by J.S.W. Chien (J. Am. Chem. Soc., 81, 86 (1959)) and G.L. Karapinka, W.L. Carrick (J. Polym. Sci., 55, 145 (1961)). There are 3 figures and 1 table. ✓

ASSOCIATION: Institut khimicheskoy fiziki Akademii nauk SSSR (Institute of Chemical Physics of the Academy of Sciences USSR)

PRESENTED: July 23, 1962, by N.N. Semenov, Academician

SUBMITTED: July 23, 1962

Card 3/3

TSYNKALOVSKIY, I.B., dotsent; SHILOVA, D.A., vrach

Capillary resistance of the mucosa of the cervix uteri and skin  
in Botkin's disease. Akush.i gin. no.6:60-62 '61.

(MIRA 14:12)

1. Iz kliniki infektsionnykh bolezney (zav. - prof. A.G.  
Podvarko) i kafedry patologicheskoy fiziologii (zav. - prof.  
I.A. Gyvin) Kubanskogo meditsinskogo instituta.

(HEPATITIS, INFECTIOUS) (UTERUS--BLOOD SUPPLY)  
(SKIN--BLOOD SUPPLY) (CAPILLARIES)

SHILOVA, G. B., CAND MED SCI, "FUNCTIONAL VALUE OF  
THE MASTICATORY APPARATUS RESTORED BY PROSTHESES OF  
VARIOUS DESIGNS." KHAR'KOV, 1960. (KHAR'KOV MED INST).  
(KL, 3-61, 237).

SHILOVA, G.B.

Effectiveness of mastication in subjects using dental prosthesis.  
Trudy LSGMI 63:109-120 '60. (MI:A 15:1)  
(DENTAL PROSTHESIS) (MASTICATION)

SHILOVA, G.B. (Khar'kov)

Characteristics of the adaptation to dental bridges and arched  
protheses. Probl.stom. 6:291-296 '62. (MIRA 16:3)  
(DENTAL PROSTHESIS)



MAYBERODA, V.I.; SOLOV'YEVA, G.I.; EGLIT, L.V.; FODIMAN, I.V.; SHILOVA, G.I.;  
ZARINA, E.Ya.; CHAMOVA, L.P.; FILICHEVA, T.B.

Highly dispersed pigments for stock dyeing of viscose fibers. Khim.  
volok. no.3:60-62 '65. (MIRA 18:7)

1. Vsesoyuznyy nauchno-issledovatel'skiy iskusstvennogo volokna (for Mayberoda, Solov'yeva, Eglit).
2. Nauchno-issledovatel'skiy institut organicheskikh poluproduktov i krasiteley (for Fodiman, Shilova).
3. Klinskiy kombinat iskusstvennogo i sinteticheskogo volokna (for Zarina, Chamova, Filicheva).

89970

S/039/60/051/002/005/005  
C111/C333

164900

AUTHOR:

Shilova, G.I. (Gor'kiy)

TITLE:

Existence of an absolute minimum of the multiple integrals of the calculus of variations in non-parameter form

PERIODICAL: Matematicheskii sbornik, v. 51, no. 2, 1960, 253-272

TEXT: Let  $\bar{G}$  be a closed bounded domain of the Euclidean

$R_n(x^1, x^2, \dots, x^n)$ ,  $n \geq 2$ , with the boundary  $G'$ , where it is assumed that a  $\delta > 0$  exists such that every sphere, the radius of which is smaller than  $\delta$ , contains no component of  $G'$  in the interior (i.e. the boundary is uniformly regular).

$f(x)$ ,  $x = (x^1, x^2, \dots, x^n) \in \bar{G}$  is called absolutely continuous in the sense of Tonelli, if it is continuous in  $\bar{G}$  relative to  $x^1, \dots, x^n$ , absolutely continuous for  $n=1$ , and for  $n > 1$  inductively described as follows:

1)  $f(x)$  is absolutely continuous in the sense of Tonelli relative to  $x^1, x^2, \dots, x^{i-1}, x^{i+1}, \dots, x^n$  for almost all values  $x^i$  ( $i=1, 2, \dots, n$ ).

2)  $\int_G \sum_{i=1}^n |p^i| d\Omega < \infty$ , where  $p^i = \frac{\partial f}{\partial x^i}$  ( $i=1, 2, \dots, n$ ),  $d\Omega$  -- element of

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S/039/60/051/002/005/005  
C111/C333

Existence of an absolute minimum...

space.

A function  $f(x)$ ,  $x \in \bar{G}$  is said to belong to the class  $A^\alpha$ ,  $\alpha > 1$ , if  
1)  $f(x)$  is absolutely continuous in the sense of Tonelli for  $x \in \bar{G}$ , and

if 2)  $\int_G \left[ \sum_{i=1}^n (p^i)^2 \right]^{\alpha/2} d\Omega < \infty$ .

$f(x)$ ,  $x \in \bar{G}$ , is called admissible, if it belongs to the class  $A^n$ ,  
 $|f| \leq M$ ,  $f(x) = \psi(x)$  for  $x \in G'$ , where  $\psi(x)$  is defined and continuous in  
 $G'$ , if  $|\psi| \leq M$  and  $(f, G, F) = \int_G F(x, f, p) d\Omega < +\infty$ , where  $F(x, f, p) =$

$= F(x^1, x^2, \dots, x^n, f, p^1, \dots, p^n)$ ,  $x \in \bar{G}$ , is continuous in all arguments.  
Let  $r'(f_1, f_2) = r(\{f_1, G_1'\}, \{f_2, G_2'\})$ , where  $\{f, G'\}$  denotes the set of

the points  $\{x^1, x^2, \dots, x^n, f\}$  for which  $x \in G'$ ,  $r(E_1, E_2) =$   
 $= \max \{ \varphi(E_1, E_2), \varphi(E_2, E_1) \}$ , where  $(E_i, E_j) = \sup_{p_1 \in E_i} \left\{ \inf_{p_2 \in E_j} \|p_1 - p_2\| \right\}$ ,

$\|p_1 - p_2\|$  is the ordinary Euclidean distance.

$f(x)$ ,  $x \in \bar{G}$ , is called piecewise linear, if 1)  $\bar{G}$  is the sum of a finite  
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S/039/60/051/002/005/005

C111/C333

Existence of an absolute minimum...

number of  $n$ -dimensional simplices, 2)  $f(x)$  is continuous in  $\bar{G}$ , 3) there is a simplicial decomposition  $q_1, q_2, \dots, q_m$  of  $G$  such that  $f(x)$  is linear in every simplex  $q_i$ .

Fundamental theorems: Let  $\bar{G}$  be a bounded domain in  $R_n$ ,  $n \geq 2$ , with uniformly regular boundary. Let  $\psi(x)$  be defined and continuous on  $\bar{G}$ ,  $|\psi| \leq M$ . Let the functions  $F(x, f, p)$ ,  $F_{p_i}(x, f, p)$  ( $i=1, 2, \dots, n$ ) be defined for  $x \in \bar{G}$ ,  $|f| \leq M$  and arbitrary  $p$ , be continuous relative to all arguments, and satisfy the conditions:

1) There exist  $\beta > 0$ ,  $C > 0$  such that for every  $x \in \bar{G}$  it follows:

$$F(x, f, p) \geq \beta \left[ \sum_{i=1}^n (p^i)^2 \right]^{n/2} \text{ from } |f| \leq M, \sum_{i=1}^n (p^i)^2 \geq C^2.$$

$$2) \mathcal{E}(x, p, \bar{p}) = F(x, f, p) - F(x, f, \bar{p}) - \sum_{i=1}^n (p^i - \bar{p}^i) F_{p_i}(x, f, \bar{p}) \geq 0 \text{ for all } x \in \bar{G},$$

$|f| \leq M$  and arbitrary  $p$  and  $\bar{p}$ .

3) There exists a continuous convex function  $\varphi(p)$  and constants  $A_1, A_2$

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such that  $A_1 \varphi(p) \leq F(x, f, p) \leq A_2 \varphi(p)$  holds for all  $x \in \bar{G}$ ,  $|f| \leq M$  and all  $p$ .

Then: If there exists at least one admissible function, then there exists an admissible function  $f_0(x)$  which gives an absolute minimum to the integral  $(f, G, F)$  in the class of all admissible functions. Here it holds  $(f_0, G, F) = \inf \left\{ \lim_{k \rightarrow \infty} (f_k, G_k, F) \right\}$ , where  $\inf$  is taken over all

sequences of piecewise linear functions  $f_k(x)$ ,  $x \in \bar{G}_k \subset G$  ( $k=1, 2, \dots$ ), for which  $r^*(f_k, f_0) \rightarrow 0$  holds for  $k \rightarrow \infty$ .

The proof of the fundamental theorem is based on six lemmata and three theorems on piecewise linear functions.

S.N.Bernshteyn, S.L.Sobolev and A.G.Sigalov are mentioned. There are 9 references: 5 Soviet-bloc and 4 non-Soviet-bloc. The two references to English-language publications read as follows: E.McShane, Jensen's inequality, Bull.Amer.Mat.Soc., 43, No.8 (1937), 521-527; C.Morrey, Multiple integral problems in the calculus of variations and related topics, Univ.Calif.Publ.Math., 1943.

SUBMITTED: August 19, 1958

Card 4/4

*Shilova, F.F.*

POZHARISKIY, F.I.; TOLASKAYA, M.S.; SHILOVA, A.P.

Pathological anatomy of silicosis. Arkh.pat., Moskva 12 no.2:23-32  
Mar-Apr 50. (GLML 19:4)

1. Of the Department of Pathological Anatomy (Head -- Prof. F.I. Pozhariskiy), Central Institute for the Advanced Training of Physicians (Director -- Prof. V.P. Lebedev) and of the Patho-Morphological Laboratory, Institute of Labor Hygiene and Occupational Diseases (Director -- Corresponding Member AMS USSR Prof. A.A. Letavet) AMS USSR, Moscow.

SHILOVA, A.S.

Work of the Council of Nurses. Med.sestra no.10:31 0 '55  
(MLRA 8:12)

1. Predsedatel' Soveta meditsinskikh sester, Moscow.  
(NURSES AND NURSING)

USSR/Microbiology. Technical Microbiology

F

Abs Jour : Ref Zhur-Biol., No 13, 1958, 57569

Author : Novoselova L. V., Shilova A. V., Rumba A. A.

Inst : All-Union Institute of the Confectionary  
Industry

Title : New Technology of the Preparation of Seeding  
Material in the Production of Citric Acid

Orig Pub : Tr. Vses. n-i in-ta konditer. prom-sti, 1955,  
Vyp. 11, 136-139

Abstract : No abstract

Card 1/1



SHILOVA, E. S., KRYLOVA, K. T.

"Certain ecological characteristics of the yellow marmot in northern Priaral'ye which are important in the epizootology of the plague." p. 243

Desyatoye Soveshchaniye po parazitologicheskim problemam i prirodnootchaynym boleznyam. 22-29 Oktyabrya 1959 g. (Tenth Conference on Parasitological Problems and Diseases with Natural Foci 22-29 October 1959), Moscow-Leningrad, 1959, Academy of Medical Sciences USSR and Academy of Sciences USSR, No. 1 254pp.

Aralamorskaya Antiplague Station

SHILOVA, G. I.

USSR/Mathematics - Finite difference integrals

Card 1/2 Pub. 22 - 11/53

Authors : Shilova, G. I.

Title : Existence of the absolute minimum of the finite difference multiple integrals

Periodical : Dok. AN SSSR 102/4, 699-702, Jun 1, 1955

Abstract : A brief description is presented of the proof of the existence of continuous solutions of finite difference integrals of the type:

$$\int_{\Omega} F(x^1, x^2, \dots, x^n, f, p^1, p^2, \dots, p^n) d\Omega$$

where the  $p^i = \frac{\partial f}{\partial x^i}$ , and  $d\Omega = dx^1 dx^2 \dots dx^n$  at the

$\alpha = n > 2$  when the function  $F$  is subjected to the following conditions:

Institution : The State University, Gor'kiy

Presented by : Academician I. G. Petrovskiy, March 1, 1955

Card 2/2 Pub. 22 - 11/53

Periodical : Dok. AN SSSR 102/4, 699-702, Jun 1, 1955

Abstract :

$$F(x, f, p) = F(x^1, x^2, \dots, x^n, f, p^1, p^2, \dots, p^n) \geq m \left\{ \sum_{i=1}^n (p^i)^2 \right\}^{\alpha/2}$$

where the  $\alpha$  and  $m$  are positive numbers independent of the argument  $x^1, x^2, \dots, x^n, f, p^1, p^2, \dots, p^n$ . Four references: 1 Ital., 1 USA and 2 USSR (1933-1953).

SHILOVA, G.I.

Printing with pigments based on polyvinyl acetate emulsion.  
Izv.vys.ucheb.zav.; tekhn.tekst.prom. no.1:133-136 '60.  
(MIRA 13:6)

1. Moskovskiy tekstil'nyy institut.  
(Textile printing)

KLYUCHNIKOVA, V.M., kard. tekhn. nauk, assistant; SHILOVA, G.L., stat. tika

Using the calculation method for determining the time needed for  
the bending of the edges of shoe upper parts. Nauch. trudy NIILP  
no.27:108-114 '63. (MIA 17:11)

1. Kafedra tekhnologii izdeliy iz kozni Moskowskogo tekhnicheskogo  
instituta legkey promyshlennosti.

PHASE I BOOK EXPLOITATION

SOV/3882

Matematika v SSSR za sorok let, 1917-1957, tom 2: Biobibliografiya  
(Mathematics in the USSR for Forty Years, Vol 2: Biobibliography) Moscow,  
Fizmatgiz, 1959, 819 p. Errata slip inserted. 6,000 copies printed.

Eds.: A. G. Kurosh (Chief Ed.), V. I. Bityutskov, V. G. Boltyanskiy, Ye. B.  
Dynkin, G. Ye. Shilova, and A. P. Yushkevich; Tech. Ed.: S. N. Akhlamov.

PURPOSE: This book is intended for mathematicians and science historians.

COVERAGE: This is the second of a two-volume work. It contains contributions  
of Soviet mathematicians for the period 1917-1957 and was compiled by  
Yu. A. Gor'kov. Ke. Ye. Chernin wrote the part pertaining to the approxi-  
mation method and "machine" mathematics. This includes bibliographic  
material from "Mathematics in the USSR for 15 Years" and "Mathematics in  
the USSR for 30 Years". A significant part of the bibliographic material  
has been checked against lists of works sent to the editor by various  
scientists. The authors are presented in alphabetical order, while the  
works of each author are arranged chronologically. At the end of the book  
is a list of the basic mathematical journals of the world. Some 22,000  
titles of works of more than 3,600 authors are given (in "Mathematics in  
the USSR for 30 Years", there are about 7,000 works and 1,300 authors).

Card 1/2

Mathematics in the USSR (Cont.)

SOV/3382

The book emphasizes those works which are important either for the mathematical methods presented in them or for their statement of mathematical problems. As a rule, no publications on mathematical methodology and pedagogic literature are included; the latter is represented only by existing university textbooks. In addition to the bibliographic material, the book contains a large amount of biographic data on Soviet mathematicians. This biographic material was assembled by R. S. Bitiyutskova, mainly on the basis of information sent to the editor. The book also gives information on reviews of the works of Soviet scientists in journals and articles from "Mathematics in the USSR for 30 Years", "Mathematics in the USSR for 15 Years", and from the first volume of the present work, "Mathematics in the USSR for 40 Years", referred to in the book by the following symbols respectively: M-XV, M-XXX, and M-XL.

TABLE OF CONTENTS: None given.

AVAILABLE: Library of Congress

Card 2/2

GC/Rem/fal  
7-18-60

SHILOVA, I.F.

Synoptic conditions of warm winters in the southeastern region of the European U.S.S.R. Trudy TSIP no.42:57-64 '56. (MLRA 9:11)

1. Privolzhskoye UGMS.  
(Russia, Southern--Winter)



SHILOVA, I.M.

Sexual dimorphism and pollination in *Schizandra chinensis*.

Mat. k izuch. zhen'. i drug. lek. rast. Dal'. Vest. no.5:

267-270 '63.

(MIRA 1718)

1. Khabarovskiy meditsinskiy institut.

FLOROVSKAYA, Vera Nikolayevna. SOKOLOVA, V.A., prof., red.; SHILOVA, K.A.,  
red.; GEORGIYEVA, G.I., tekhn.red.

[Fluorescence bituminological method in petroleum geology]  
Liuminestsentno-bituminologicheskii metod v neftianoi geologii.  
[Moskva] Izd-vo Mosk. univ., 1957. 290 p. (MIRA 11:5)  
(Petroleum geology)

*57/1004-5.11*  
GORSHKOV, Georgiy Petrovich, prof.; YAKUSHEVA, Aleksandra Fedorovna, dots.;  
CHERYGIN, M.M., red.; SHILOVA, K.A., red.; GUR'YANOV, V.P., tekhn.  
red.

[General geology] Obshchaya geologiya. Pod red. M.M.Charygina.  
[Moskva] Izd-vo Mosk.univ., 1957. 465 p. (MIRA 11:3)  
(Geology)

LANGH, O.K., prof.; SHILOVA, K.A., red.; YEMAKOV, M.S., tekhn. red.

[Principles of hydrogeology] Osnovy gidrogeologii. Izd. 2. [Moskva]  
Izd-vo Mosk. univ., 1958. 254 p. (MIRA 11:8)  
(Water, Underground)

SILIN-BEKCHURIN, Aleksey Ivanovich; SHILOVA, K.A., red.; YERMAKOVA, M.S.,  
tekhn. red.

[Dynamics of underground water] Dinamika podzemnykh vod. [Moskva]  
Izd-vo Mosk. univ., 1958. 257 p. (MIRA 11:9)  
(Water, Underground)

TARNOVSKIY, Konstantin Nikolayevich; SIDOROV, A.L., prof., red.; SHILOVA,  
K.A., red.; YERMAKOV, M.S., tekhn. red.

[Formation of state and monopolistic capitalism in Russia during  
The First World War; study based on the metallurgical industry]  
Formirovaniye gosudarstvenno-monopolisticheskogo kapitalizma v  
Rossii v gody pervoi mirovoi voyny (na primere metallurgicheskoi  
promyshlennosti. [Moskva] Izd-vo Mosk. univ., 1958. 262 p.  
(Metal industries) (MIRA 11:9)

KRYLOV, Mikhail Konstantinovich; SHILOVA, K.A., red.; GEORGIYEVA,  
G.I., tekhn.red.

[Radio and electrical engineering laboratory handbook]  
Rukovodstvo dlia laboratornykh rabot po elektrotekhnike i  
radiotekhnike. Moskva, Izd-vo Mosk.univ., 1959. 241 p.  
(MIRA 12:12)

(Radio--Laboratory manuals)  
(Electric engineering--Laboratory manuals)

COUNTRY : USSR  
CATEGORY :

M-6

ABST. JOUR. : RZBiol., No. 1/4, 1957, No. 8/118

AUTHOR : Shilova, L. A.  
INSP. : Kirovsk Agricultural Institute  
TITLE : Effects of Different Methods of Singing  
About Full Maturation of Seed on Development  
of Narrow-Leaf Lupine.

ORIG. PUB. : Tr. Kirovskogo s.-kh. in-ta, 1957,  
12, No 24, 67-73

ABSTRACT : In 1949-1953 experiments, on harvesting of narrow-leaf lupine at the stage of pattern-formation on the seeds, with subsequent completion of seed maturation on the cut stalks, the seeds matured 8-20 days earlier than on standing plants. Germination activity, absolute weight, catalase activity, content of solids, of the seeds were also higher in the first mentioned variant. Offspring of seeds which completed maturation on the cut plants were characterized by more pronounced early ripening and by increased respiration activity. -- Ye. A. Okorokova.

CARD: //1



FINKEL'SHTEYN, G.A.; SHILOVA, L.A.

Work of thickeners in nonferrous metal plants. Obeg. rud 7 no.3:53-56  
'62. (MIRA 16:4)

(Nonferrous metals—Metallurgy)

FINKEL'SHTEYN, G. A.; SHILOVA, L. A.

Filtering the products of the dressing of nonferrous and  
precious metal ores. Obog. rud. 7 no.6:36-40 '62.  
(MIRA 16:4)

(Nonferrous metals) (Ore dressing)

KRIVOLAPOV, F.G.; SHILOVA, L.I.

Hydrophilic properties of groats in connection with their  
hydrothermal processing. Izv.vys.ucheb.zav.; pishch.tekh. no.5:  
13-16 '59. (MIRA 13:4)

1. Odesskiy tekhnologicheskiy institut imeni I.V.Stalina kafedra  
neorganicheskoy khimii.  
(Cereal products,

SENIOR, L.I.; GIC 111111, Ye.N.

Effect of the addition of neutral salts on the alumina yield in  
the hydrolysis of potassium alum. Trudy GMI no.20:49-50  
(: IM. 14:15)

(Alum)

(Hydrolysis)

KRIVOLAPOV, F.G.; SINEL'NIKOVA, L.Ye.; SHILOVA, L.I.

Effect of the hydrothermal processing on certain characteristics  
of great starches. Izv.vys.ucheb.zav.; pishch. tekhn. no.3:54-56  
'63. (MIRA 16:8)

1. Odesskiy tekhnologicheskiy institut imeni Lomonosova, kafedra  
neorganicheskoy i analiticheskoy khimii.  
(Starch)

SHILOVA, L.M.

Introduction of Schisandra chinensis into cultivation. Mat. k izuch.  
zhen'shenia i lim. no.4:122-130 '60. (MIRA 13:9)

1. Khabarovskiy Meditsinskiy institut.  
(SCHISANDRA)

YERMOLAYEVA, Ye.Ya.; FILIPPOVICH, L.N.; SHILOVA, M.A.

Translocation of assimilates in Perilla at different stage of development[w.s.i.E.]. Trudy Bot. inst.Ser.4 no.14:73-88 '60.

(MIRA 14:3)

(Plants, Motion of fluids in)

YERMOLAYEVA, Ye.A.; KOZLOVA, N.A.; BATSKA, P.; SHILOVA, M.A.; VASIL'YEVA,  
M.Ye.

Effect of maleic hydrazide on photosynthesis and carbohydrate  
metabolism in plants. Trudy Bot. inst. Ser. 4 no.15:120-131  
'62. (MIRA 15:7)  
(Photosynthesis) (Growth promoting substances) (Pyridazinedione)



SHIDOVA, M.V.

Detection of pulmonary tuberculosis in persons in whose families  
children show a positive reaction to tuberculin. Probl. tub.  
no. 7.3-7 '64. (MIRA 18-19)

I. Moskovskiy institut tuberkuleza (dir. T.P. Mochalova,  
zastupitel' direktora po nauchnoy chasti - prof. D.P. Asheyev)  
Ministerstva zdравookhraneniya RSFSR i dispanser No. 16 (glavnyy  
vrach I.A. Zol'manin), Moskva.

KARPOVICH, I.A.; SHILOVA, M.V.

High-voltage photo-e.m.f. in antimony trisulfide layers. Fiz. tver.  
tela 5 no.12:3560-3568 D '63. (MIRA 17:2)

1. Gor'kovskiy gosudarstvennyy universitet imeni Lobachevskogo.

SHILOVA, N.

At the Kirov Aeroclub. Kryl.rod. 6 no.11:12b-12d N '55. (MLRA 9:2)  
(Kirov--Aeronautical Societies)

84516

S/190/60/002/004/017/020  
B004/B056

15.8.114 2109.22 09, 1581

AUTHORS: Kolesnikov, G. S., Davydova, S. L., Yermolayeva, T. I.,  
Shilova, N. D., Bykhovskaya, M. B.

TITLE: Carbochain Polymers and Copolymers. XXIII. The <sup>1</sup>  
Copolymerization of Diallyl-derivatives of Germanium, Tin,  
and Silicon <sup>1</sup> With Styrene and Methylmethacrylate in the  
Presence of Benzoylperoxide

PERIODICAL: Vysokomolekulyarnyye soyedineniya, 1960, Vol. 2, No. 4,  
pp. 567-571 X

TEXT: It was the aim of the present paper to investigate the influence  
exerted by the content in diallyldimethylgermanium, diallyldiethyl-  
stannane, diallyldiethylsilane in the initial mixtures with respect to  
the composition of the polymers with styrene and methylmethacrylate.  
Copolymerization took place at 60°C in gasoline. The reaction lasted 8 h,  
concentration of the benzoylperoxide was 2% by weight, referred to the  
sum of the monomers. The copolymers with methylmethacrylate were found

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Carbochain Polymers and Copolymers. XXIII.  
The Copolymerization of Diallyl-derivatives  
of Germanium, Tin, and Silicon With Styrene  
and Methylmethacrylate in the Presence of  
Benzoylperoxide

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S/190/60/002/004/017/020  
B004/B056

to be insoluble in the usual solvents. The compounds obtained were analyzed (Tables 1,2), and their thermomechanical properties were investigated (Figs. 1,2). In the copolymers with styrene, also the viscosity in benzene and the molecular weight was determined. An increasing content in elemental organic monomers in the initial mixture resulted in a decrease of the molecular weight of the copolymers. This is explained by the low activity of the elemental organic compounds. The copolymers with styrene had a lower softening temperature than polystyrene. The copolymers with methylmethacrylate showed no steric structure in the course of the thermomechanical investigation. That they are nevertheless insoluble, is explained by the very weak cross linking, which produces no effect upon the thermomechanical properties. The authors thank S. R. Rafikoy and G. L. Slonimskiy for determining the molecular weight and the thermomechanical properties. They mention papers by V. V. Korshak et al. (Refs. 1-3) and A. Ye. Borisov (Ref. 4). There are 2 figures,

Card 2/3

Carbochain Polymers and Copolymers. XXIII.  
The Copolymerization of Diallyl-derivatives  
of Germanium, Tin, and Silicon With Styrene  
and Methylmethacrylate in the Presence of  
Benzoylperoxide

84516

S/190/60/002/004/017/020

B004/B056

2 tables, and 4 Soviet references.

ASSOCIATION: Institut elementoorganicheskikh soedineniy AN SSSR  
(Institute of Elemental Organic Compounds of the AS USSR) X

SUBMITTED: January 15, 1960

Card 3/3

SHILOVA, N.I.

Effect of the length of the fiber and of the ~~sliver~~ number on the dimension of the clearance in the drafter mechanism with a curved field. Izv.vys.tcheb.zav.; tekhn.tekst.prom. no.6:71-77 '62. (MIRA 16:2)

1. Moskovskiy tekstil'nyy institut.  
(Spinning machinery)

SHILOVA, N.I.

Developing the ways for redesigning the drafters of domestic  
roving machines for the processing of heterogenous mixtures.  
Izv.vys.ucheb.zav.; tekhn.tekst.prom. no.1:65-71 '63.  
(MIRA 16:4)

1. Moskovskiy tekstil'nyy institut.  
(Spinning machinery)



SHILOVA, N.I., aspirant

Width of the sliver in the curved field of drafting of the "2 x 3"  
draft. Tekst.prom. 23 no.11:46-51. N '63. (MIRA 17:1)

1. Moskovskiy tekstil'nyy institut.

88823

S/035/61/000/002/008/016

A001/A001

3,1540 (1062, 1128, 1168)

Translation from: Referativnyy zhurnal, Astronomiya i Geodeziya, 1961, No. 2, p. 53, # 2A437

AUTHORS: Farimov, M.G., Shilova, N.S.

TITLE: On the Interconnection of Movements of Matter in the Corona and Prominences

PERIODICAL: "Izv. Astrofiz. in-ta. AN KazSSR", 1959 (1960), Vol. 9, pp. 10-20 (Engl. summary)

TEXT: The authors report on an investigation of the movement of coronal matter using emission line  $\lambda$  6374 and of the movement of prominences using the  $H_2$  line at the same position angle and the same distance from the Sun's surface. Spectrograms were taken by the coronagraph (dispersion 10A/mm) of the coronal station of the Astrophysical Institute at AS KazSSR. Displacements of the studied lines relative to Fraunhofer lines were determined from microphotometric cross sections. 63 spectrograms were measured. Mean velocities in the prominences and the corona amounted to  $31 \pm 5$  and  $12 \pm 3$  km/sec respectively. A coincidence trend in the movements of substance of the corona and prominences is noticed. The authors plotted

Card 1, 2

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S/O35/61/000/002/008/016

A001/A001

On the Interconnection of Movements of Matter in the Corona and Prominences

a graph of relation of the corona velocity and prominence velocity. The data are practically identical with those of G. Newkirk. The effect of the shape and intensity of prominences on the movement direction of matter in the corona was studied. When velocities in the corona and prominences were opposite, the latter were usually of low intensity. At the same direction of movements, prominences of high intensity are observed which rise to high altitudes. Changes in the movement velocity of substance in the corona and prominences with the position angle were investigated. The scale of turbulent macroscopic movements in the corona was determined. The value  $\geq 70,000$  km was obtained. The authors note the absence of increasing velocities of the corona over active zones of the photosphere and lower chromosphere. They point out the enhancement of the coronal emission in line  $\lambda$  6374 in the proximity of prominences. Some theoretical hypotheses on movements in the corona and chromosphere are discussed. It is mentioned that observational data pertaining to velocities of the corona and prominences, can be theoretically explained assuming the movement of matter of both types along the force lines of the same magnetic field. There are 14 references.

V. Yesipov

Translator's note: This is the full translation of the original Russian abstract.  
Card 2/2

S/203/61/001/005/004/028  
A006/A101

AUTHOR: Shilova, N.S.

TITLE: On polarization of external corona during observations from an airplane of the solar eclipse on February 15, 1961

PERIODICAL: Geomagnetizm i aeronomiya, v. 1, no. 5, 1961, 650 - 652

TEXT: Photographs were taken with a three-lens camera during the total eclipse on February 15, 1961, from a TU-104A airplane at 10,000 m over Rostov. These photographs were used to investigate polarization of the solar corona at  $2.5 - 5 R_{\odot}$  distance within a wavelength range from 5500 - 6800 Å. To exclude light dispersed by the Sun and in the photographic emulsion, the camera and the airplane windows, the background intensity was taken into account graphically; in the internal corona ( $R \leq 1.5 R_{\odot}$ ) its distribution was considered to be the same as on the lunar disk. At the other points the background intensity was found by interpolation between the background and that spot of the photograph which could be considered as unaffected by the corona light. Two photographs made with 0.5 and 1 sec exposure were analyzed. Polarization values obtained are higher than those obtained with a Van de Hulst model (Ref. 1: Van de Hulst Solntse [the Sun])

Card 1/2

On polarization of external corona ...

S/203/61/001/005/004/028  
A006/A101

IL., Moscow, 1957, 184). The gradient of the polarization distribution curve approaches the gradient of Van de Hulst's curve for maximum solar activity. The degree of polarization is lower in the polar areas than in the equatorial ones at the same distance. This proves the difference between the corona shape in 1961, and the "maximum" one. However, the systematically higher value of the degree of polarization for all corona sections in 1961 proves its greater brightness as compared to that of a normal corona of the corresponding phase of activity. This is probably connected with an anomaly of the given cycle of activity. It is found that the total intensity of the corona drops less abruptly than intensity of polarized light  $I_p$ . If the drop of intensity in the corona is described by formula  $I = I_0 R^{-n}$ , then the average exponent  $n_{av}$  for the total corona radiation is 4.2, and 7.1 for the polarized component, at  $R = 3 ; 5 R$ . The author thanks G.M. Nikol'skiy for his supervision of the present study. There are 3 figures and 5 references. 4 Soviet-bloc and 1 non-Soviet-bloc.

ASSOCIATION: Institut zemnogo magnetizma, ionosfer, i rasprostraneniya radiovoln, AN SSSR (Institute of Terrestrial Magnetism, Ionosphere and Radiowave Propagation, AS USSR)

SUBMITTED: August 1, 1961

Card 2/2

ACCESSION NR: APL007674

S/0214/63/000/006/0059/0065

AUTHOR: Shilova, N. S.

TITLE: Observation of H and K lines of  $\text{Ca}^+$  in a flocculus

SOURCE: Solnechnyye dannyye, no. 6, 1963, 59-65

TOPIC TAGS: chromospheric flare, active flocculus, flocculus spectrum, microphotometer, Fraunhofer line, continuous spectrum prominence, radial velocity, photospheric line, chromospheric line, sunspot, solar flare, flocculus, calcium ion H line, calcium ion K line

ABSTRACT: Observations of H and  $\text{KCa}^+$  lines in an active flocculus found at the termination of a solar flare observed on July 18, 1961 with coordinates  $\varphi = -11^\circ$  and  $\lambda = +59^\circ$  have been reported. The telescope grid used showed  $0.76 \text{ \AA/mm}$  dispersion. A refined recording microphotometer MF-4 was used with variable slit width from  $0.003 \text{ \AA}$  to  $0.015 \text{ \AA}$ . Several contours of  $\text{H}_2$  and  $\text{K}_2\text{Ca}^+$  lines were recorded with unit intensity in the continuous spectra of the disk for a given wave-length span. The records showed, in addition to the flare, the presence of three prominences near the disk edge. The equivalent width and half-width of the  $\text{H}_2$  and  $\text{K}_2$

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ACCESSION NR: AP4007674

in the flare as well as the prominences are given in tabular form. The method of A. B. Severnyy (Izv. KRAO, 12, 33, 1954) was used to determine the presence of self-absorption in  $H_2, K_2$  lines from prominences and subsequently the number of radiating atoms. In this manner the speed of  $Ca^+$  ions was determined, assuming a speed of 15 km/sec for hydrogen atoms. Finally, the number of  $Ca^+$  ions in their ground state was calculated. The lower bound of this number was found to give an average value of  $4 \cdot 10^{16}$ . The quantity of hydrogen atoms in the sun pillar per cc then is  $10^{13.6}$  at a chromospheric altitude of  $10^8$  cm. "The author is grateful to G. M. Nikol'skiy for his advice in this work." Orig. art. has: 4 formulas, 3 tables, and 2 figures.

ASSOCIATION: Institut zemnogo magnetizma, ionosfery\* i rasprostraneniya radiovoln AN SSSR (Institute of Terrestrial Magnetism, Ionosphere and Radio Wave Propagation AN SSSR)

SUBMITTED: 00

DATE ACQ: 21Jan/4

ENCL: 00

SUB CODE: AS

NO REF SOV: 009

OTHER: 004

Card 2/2

L 63001-65 ENT(1)/ENG(v)/EEC-4 GN  
ACCESSION NR: AP5020676

UR/0033/65/042/004/0757/0763  
523.75

AUTHOR: Shilova, N. S.

TITLE: The concentration and ionization of magnesium in the solar chromosphere  
determined by observations of emission lines

SOURCE: Astronomicheskiy zhurnal, v. 42, no. 4, 1965, 757-763

TOPIC TAGS: metallic line, coronagraph, line half width, self absorption equivalent  
width, photoexcitation, optical depth, ionization balance, ultraviolet radiation,  
recombination

ABSTRACT: A series of metallic lines were obtained at the Institute of Terrestrial  
Magnetism, Ionosphere, and Propagation of Radio Waves by means of a coronagraph  
equipped with a high-dispersion spectrograph when no eclipse took place. Corrected  
and reduced profiles of MgI lines  $b_1$  to  $b_4$  covering heights from 200 to 2500 km  
were constructed. The wide halfwidths of lines are caused by self-absorption. The  
equivalent widths of the lines  $b_1$ ,  $b_2$ , and  $b_4$  were determined, and the decrease in  
line intensity was evaluated from the ratio of widths. A theoretical computation  
of the intensities of the 5184 Å, 5173 Å, and 5167 Å lines yielded the ratio 5:3:1.

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L 63001-65

ACCESSION NR: AP5020676

but the observed intensities yielded the ratio 1.54:1.20:1. These discrepancies are explained by self-absorption. The luminescence of HgI lines and those of other metals are caused by photoexcitation at a height of 1000 km. The concentration of atoms in a transition state was determined by using the equation of the stationary state, and the optical depth was found from the concentration of atoms. An equation for the ionization balance was derived which took account of the ionization of the ground level by ultraviolet radiation and electron collisions, and also recombination conditions. The equation was solved by using arbitrary assumptions. Magnesium is totally ionized at a height of 1000 km from the sun's surface. Orig. art. has: 1 figure, 1 table, and 22 formulas. [EG]

ASSOCIATION: Institut zemnogo magnetizma, ionosfer, i rasprostraneniya radiovoln  
Akademii nauk SSSR (Institute of Terrestrial Magnetism, Ionosphere, and Propagation  
of Radio Waves, Academy of Sciences SSSR)

SUBMITTED: 31JUL64

ENCL: 00

SUB CODE: AA

NC REF SOV: 012

OTHER: 016

ATD PRESS: 4066

Card 2/2

SHILOVA, N.S.

The Ba II 4554 Å line and the intensity of the L  $\alpha$  radiation  
in the lower chromosphere. Astron. zhur. 43 no. 1:108-112  
Ja-F '66 (MIRA 19:2)

1. Institut zemnogo magnetizma, ionosfery i rasprostraneniya  
radiovoln AN SSSR. Submitted April 9, 1965.

L 10711-47 EWT(1) GM

ACC NO AR6034898

SOURCE CODE: UR/0269/66/000/008/0054/0054

28

AUTHOR: Shilova, N. S.

TITLE: On the problem of turbulence velocity in the lower chromosphere

SOURCE: Ref. zh. Astronomiya, Abs. 8.51.432

REF SOURCE: Solnechnyye dannyye, no. 10, 1965, 71-74

TOPIC TAGS: chromosphere, photosphere, spectrum, luminescence, spectral line, cerium, magnesium, titanium/IZMIRAN coronagraph

ABSTRACT: Spectra obtained with an IZMIRAN coronagraph in 1964 were examined (dispersion of 2 Å/mm in  $\lambda 5000$  area). Assuming that chromospheric lines are caused by photospheric radiation diffusion, the profiles of line Ba I  $\lambda 4554$ , which is considered optically fine, have been constructed. The turbulence velocity is found to be equal to  $3.5 \pm 1.1$  km/sec. Values of turbulence velocity ranging from  $1.7 \pm 1.0$  to  $4.1 \pm 2.0$  km/sec have been found for a series of lines: cerium II, magnesium I and titanium II. It is concluded that the turbulence velocity is equal to  $\sim 3$  km/sec in the region of metal luminescence in the chromosphere. The bibliography has five references. [Translation of abstract]

Cord 1/1 SUB CODE: 03/

UDC: 523.752

ACC NR: 118033104

SOURCE CODE: UR/0033/66/043/005/0712/0717

AUTHOR: Shilova, N. S.

ORG: Institute of Terrestrial Magnetism, Ionosphere and Radiowave Propagation, Academy of Sciences SSSR (Institut zemnogo magnetizma, ionosfery i rasprostraneniya radiovoln Akademii nauk SSSR)

TITLE: Electron concentration in metallic emission regions in the chromosphere

SOURCE: Astronicheskii zhurnal, v. 43, no. 5, 1966, 942-947

TOPIC TAGS: solar chromosphere, electron emission, electron transition, transition probability

ABSTRACT: The electron concentration of metallic emission regions of the solar chromosphere was determined by means of stationary equations for the  $f^3F_3$  level of iron Fe I selected because of the high intensity of the incipient lines of this highly excited level. The contribution of the whole range of levels between  $z^5D^0$  and  $x^5F^0$  to phototransitions of the  $f^3F_3$  level was considered. Probabilities of ionizations and recombinations were determined by formulas for hydrogen-like atoms. Values for intensities of the chromospheric Fe I lines were obtained from observations with the coronagraph at the Institute of Terrestrial Magnetism. Considering the minimum and maximum probabilities of transitions with the  $f^3F_3$  level, the electron concentration

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UDC: 523.75

ACC NR: AF6033164

in the chromosphere at an altitude of about 1000 km was calculated to be  $1 \cdot 10^{12}$  -  $2 \cdot 10^{12}$   $\text{cm}^{-3}$ . This is high in comparison to the electron concentration value of  $5 \cdot 10^{10}$   $\text{cm}^{-3}$  obtained by an averaging of values found in the literature for the amount of iron in the sun. Orig. art. has: 1 table, 1 figure and 9 equations.

SUB CODE: 03/ SUM DATE: 17Nov65/ ORIG REF: 005/ CTH REF: 010

Card 2/2

SHILOVA N.V.  
CHISTOVICH, G.N.; BLYUMENFEL'D, O.M.; GORODEL'SKAYA, E.A.; PETUKHOVA, R.N.;  
POLOZOVA, T.V.; TERENT'YEVA, T.A.; SHILOVA, N.V.; SHOSHICHA, S.V.

Individual properties of staphylococcus cultures. Zhur.mikrobiol.  
epid.i immun. no.7:101 J1 '54. (MIRA 7:9)

1. Iz kafedry mikrobiologii i Leningradskogo meditsinskogo instituta  
im. Pavlova.  
(STAPHYLOCOCCUS)

Abstract U-7920, 8 Mar 56

1. Assessment and classification of natural elements according to the degree of value. V. I. Kuznetsov, USSR Academy of Sciences, Moscow
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4. Regulation of mineral composition of plants on the environment. M. I. Kuznetsov, Academy of Sciences USSR, Moscow
5. Introduction of seeds to culture on growth retardants and their effect on the growth of plants. V. I. Kuznetsov, USSR Academy of Sciences, Academy of Sciences, Moscow
6. Isotopic study of plant metabolism. V. G. Kuznetsov, USSR Academy of Sciences, Academy of Sciences, Moscow
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10-10-1964 - 10-10-1964

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"The Epidemiology and Prophylaxis of Tick-Borne Encephalitis in Melotovskaya  
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(TICKS AS CARRIERS OF DISEASE)  
(DDT (INSECTICIDE))  
(TAIGA)

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Influence of a reduction in the murine rodent population on the feeding of larvae and nymphs of the tick. *Ixodes persulcatus* P.Sch. in centers of tick-borne encephalitis [with summary in English] Biul. MOIP. Otd.biol. 61 no.3:27-34 My-Je '56. (MLRA 9:10)  
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USSR / General and Special Zoology. Insects. Insects  
And Arachnids. Chemical Method of Controlling  
Harmful Insects and Arachnids.

Abs Jour: Ref Zhur-Biol., No 21, 1958, 95503.

Author : Vashkov, V. I.; Klebetova, N. V.; Shavrina,  
V. V.; Shilova, S. A.; and Kalukina, T. I.  
Inst : Central Scientific Research Mainfection Inst-  
itute.

Title : The Activator's DDT Influence on the Insecti-  
cide Effectiveness of DDT Preparations.

Orig Pub: Tr. Tsentr. na-1. disinfects. in-1a, 1957,  
vyp 10, 198-204.

Abstract: When 1-20% of the activator DDT (4,4'-dichloro-  
diphenylmethyldicarbonyl) is added to DDT, the  
effect on the DDT preparations against flies,  
bugs, lice and roaches is accelerated and the

Card 1/2

Abstract: effectiveness of DDT against flies is increased.  
The addition of activator DDT to DDT prepara-  
tions in various proportions slightly increases  
the preparations' effectiveness against flies,  
roaches and bugs. Pure DDT preparation is  
non-toxic. -- V. O. Gutina.

Card 2/2

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Mites.

G

Abs Jour: Ref Zhur-Biol., No 17, 1958, 77035.

Author : Gladkikh, S.G.; Shilova, S.A.; Tkachenko, N.N.;  
Korovina, A.G.

Inst :

Title : Results of Work of Conducting Anti-Tick Prophylaxis  
in the Localized Region of Spring-Summer Encephalitis.

Orig Pub: Tr. Tsentr. n.-i. dezinfekts. in-ta, 1957, vyp. 10,  
226-233.

Abstract: No abstract.

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Role of wild vertebrates in the natural foci of tick-borne  
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universitet.

(Ticks as carriers of disease)  
(Parasites--Vertebrates)

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SHILOVA, S.A.; TROITSKIY, V.B.; MAL'KOV, G.B.; BEL'KOVICH, V.M.

Significance of the mobility of murine forest rodents for the  
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SHILOVA, S.A.; SIMKIN, G.N.

Biology of forest lemmings (*Myopus schisticolor* Lill) in nidi of  
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1. Predstavlena kafedroy zoologii pozvonochnykh Moskovskogo gosu-  
darstvennogo universiteta imeni M.V. Iononosova.  
(Perm Province--Lemmings) (Rodents as carriers of disease)

SHILOVA, S.A.; TROITSKIY, V.B.; DROZDOVA, Yu. V.

Penetration of ticks into villages located in endemic areas of tick-borne encephalitis. Med. paraz. i paraz. bol. 27 no.4:485-487 J1-Ag '58.  
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1. Iz Tsentral'nogo nauchno-issledovatel'skogo dezinfeksionnogo instituta.

(ENCEPHALITIS, EPIDEMIC,

Russian tick-borne, presence of ticks in focal (Rus))

(TICKS,

in focal areas of Russian tick-borne encephalitis (Rus))

SHILOVA, S.A.; TROITSKIY, V.B.; MAL'KOV, G.B.; BEL'KOVICH, V.M. (Moscow)

Significance of the mobility of murine forest rodents for the  
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institut, Moskva.

(Mice as carriers of disease)  
(Ticks)